Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
Inventor(s): Rina HAYASAKA, et al
DOCKET NO.: 040405/0336

FIG. 1

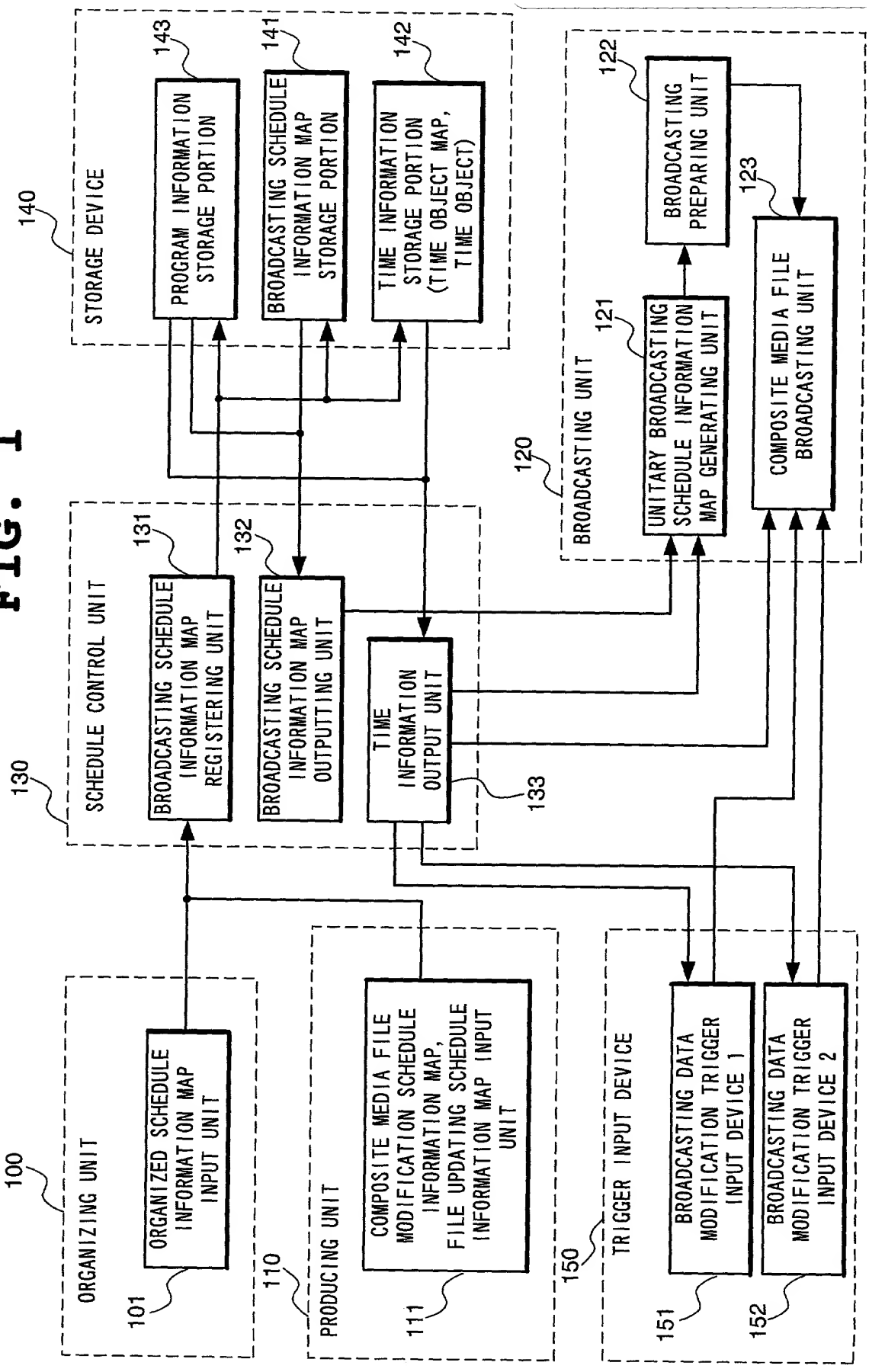

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FIG. 2

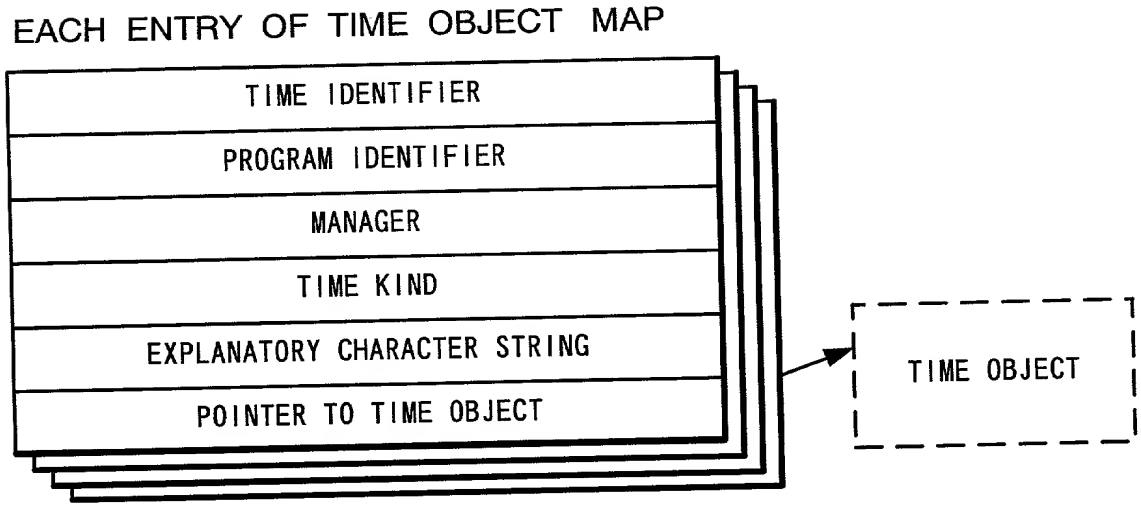
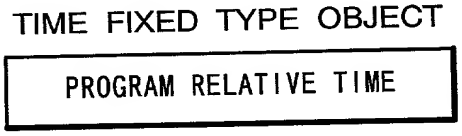
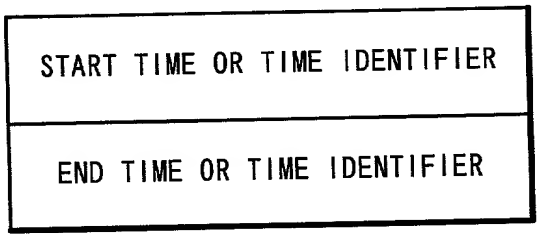


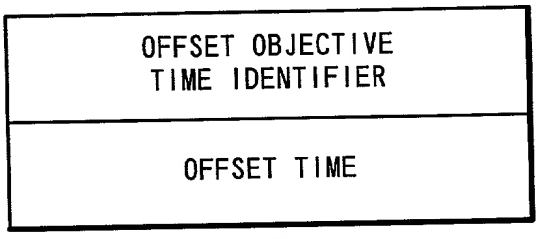
FIG. 3



(b-1)

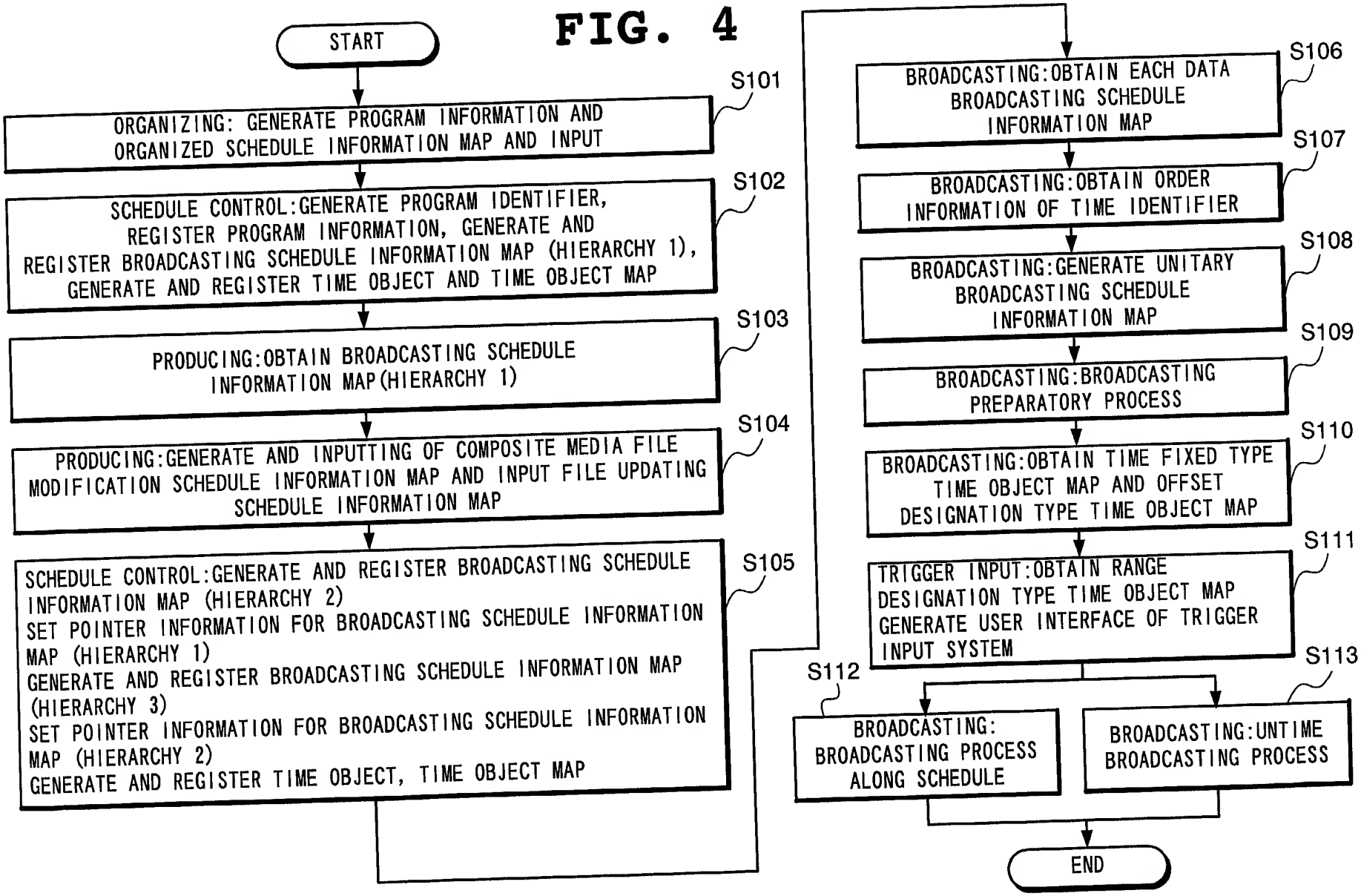


(b-2)



(b-3)

FIG. 4



Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
Inventor(s): Rina HAYASAKA, et al
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Tohkyo Tetsuhen

FIG. 5

PROGRAM INFORMATION

BROADCASTING STATION IDENTIFIER
PROGRAM START TIME
PROGRAM END TIME
PROGRAM TITLE
AUXILIARY INFORMATION

FIG. 6

ORGANIZED SCHEDULE INFORMATION MAP

BROADCASTING START TIMING	CONTINUING TIME	IDENTIFICATION NUMBER	KIND	UNTIME	TITLE	EXPLANATORY CHARACTER STRING
00/01/22 07:00:00	00:15:00	0100-0001	PROGRAM	FIXED	QUIZ ABC	NO
00/01/22 07:15:00	00:00:20	0200-0323	CM	INSERT (1)	IROHA COSMETRICS	CM (IROHA AND SO ON)
00/01/22 07:15:20	00:00:20	0200-0324	CM	OFFSET	AIU MOTORS	NO
00/01/22 07:15:40	00:00:20	0200-0325	CM	OFFSET	XYZ FOODS	NO
00/01/22 07:16:00	00:39:00	0100-0002	PROGRAM	FIXED	QUIZ ABC-2	NO
00/01/22 07/55:00	00:05:00	0100-0024	PROGRAM	FIXED	WEATHER REPORT	NO

Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
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DOCKET NO.: 040405/0336

FOREIGN PATENT

FIG. 7

PROGRAM INFORMATION STORED IN PROGRAM INFORMATION STORAGE PORTION

PROGRAM IDENTIFIER	33
BROADCASTING STATION IDENTIFIER	8
PROGRAM START TIME	00/01/22 07:00:00
PROGRAM END TIME	00/01/22 08:00:00
PROGRAM TITLE	QUIZ ABC
AUXILIARY INFORMATION	HOST:○○ GUEST:□□

Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
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DOCKET NO.: 040405/0336

FIG. 8

DATA BROADCASTING SCHEDULE INFORMATION MAP (HIERARCHY 1) STORED IN BROADCASTING SCHEDULE INFORMATION MAP STORAGE PORTION

PROGRAM IDENTIFIER	BROADCASTING START TIME (TIME IDENTIFIER)	CONTINUING TIME	IDENTIFICATION NUMBER	KIND	TITLE	POINTER TO LOWER INFORMATION MAP
33	Q-START	00:15:00	0100-0001	PROGRAM	QUIZ ABC	
33	CM-IROHA	00:00:20	0200-0323	CM	IROHA COSMETRICS	
33	CM-AIU	00:00:20	0200-0324	CM	AIU MOTORS	
33	CM-XYZ	00:00:20	0200-0325	CM	XYZ FOODS	
33	Q-Q2A	00:39:00	0100-0002	PROGRAM	QUIZ ABC-2	
33	WEATHER	00:05:00	0100-0024	PROGRAM	WEATHER REPORT	

FIG. 9

TIME OBJECT MAP IS STORED IN TIME INFORMATION STORAGE PORTION

PROGRAM IDENTIFIER	TIME IDENTIFIER	MANAGER	KIND	EXPLANATORY CHARACTER STRING	POINTER TO TIME OBJECT
33	Q-START	ORGANIZING	FIXED	NO	
33	CM-IROHA	ORGANIZING	INSERT(1)	CM (IROHA AND SO ON)	
33	CM-AIU	ORGANIZING	OFFSET	NO	
33	CM-XYZ	ORGANIZING	OFFSET	NO	
33	Q-Q2A	ORGANIZING	FIXED	NO	
33	WEATHER	ORGANIZING	FIXED	NO	

TIME FIXED TYPE TIME OBJECT

PROGRAM RELATIVE TIME
00:00:00

RANGE DESIGNATION TYPE TIME OBJECT

START - END TIME
00:14:50 - 00:15:10

OFFSET DESIGNATION TYPE TIME OBJECT

OFFSET OBJECTIVE TIME IDENTIFIER	OFFSET TIME
CM-IROHA	00:00:20

OFFSET OBJECTIVE TIME IDENTIFIER	OFFSET TIME
CM-IROHA	00:00:40

PROGRAM RELATIVE TIME
00:16:00

PROGRAM RELATIVE TIME
00:55:00

FIG. 10

COMPOSITE MEDIA FILE MODIFICATION SCHEDULE INFORMATION MAP CORRESPONDING TO SCHEDULE INFORMATION OF TIME IDENTIFIER "Q-START"

BROADCASTING START TIME	CONTINUING TIME	PRODUCING IDENTIFICATION NUMBER	UNTIME	COMPOSITE MEDIA FILE NAME	EXPLANATORY CHARACTER STRING	COMPONENT FILE LIST
00:00:00	00:01:00	0300-0001	FIXED	openning	NO	startup.html, open.jpg, title.txt
00:01:00	00:04:00	0300-0002	FIXED	introduction	NO	startup.html, intro.wav, name.txt
00:05:00	00:05:00	0300-0003	INSERT (2)	Q1-question	Q1: QUESTION	startup.html, back.jpg, button.jpg, button2.jpg
00:10:00	00:03:00	0300-0004	INSERT (2)	Q1-answer	Q1: ANSWER	startup.html, back2.jpg, answer.txt
00:13:00	00:02:00	0300-0005	INSERT (2)	Q2-question	Q2: QUESTION	startup.html, back2.jpg, button.jpg, button2.jpg

Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
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FIG. 11

FILE UPDATING SCHEDULE INFORMATION MAP OF startup.html

BROADCASTING START TIMING	UNTIME	EXPLANATORY CHARACTER STRING	DATA POSITION IN PRODUCED CONTENTS SERVER
00:00:00	FIXED	NO	URI://cserver/ch01/ev03/01/startup.html

FIG. 12

FILE UPDATING SCHEDULE INFORMATION MAP OF back.jpg

BROADCASTING START TIMING	UNTIME	EXPLANATORY CHARACTER STRING	DATA POSITION IN PRODUCED CONTENTS SERVER
00:00:00	FIXED	NO	URI://cserver/ch01/ev03/01/back.jpg
00:02:00	FIXED	NO	URI://cserver/ch01/ev03/03/back.jpg

FIG. 13

FILE UPDATING SCHEDULE INFORMATION MAP OF button.jpg

BROADCASTING START TIMING	UNTIME	EXPLANATORY CHARACTER STRING	DATA POSITION IN PRODUCED CONTENTS SERVER
00:00:00	FIXED	NO	URI://cserver/ch01/ev03/01/button.jpg
00:01:00	INSERT(2)	BUTTON CHANGE	URI://cserver/ch01/ev03/02/button.jpg

FIG. 14

FILE UPDATING SCHEDULE INFORMATION MAP OF button2.jpg

BROADCASTING START TIMING	UNTIME	EXPLANATORY CHARACTER STRING	DATA POSITION IN PRODUCED CONTENTS SERVER
00:00:00	FIXED	NO	URI://cserver/ch01/ev03/01/button2.jpg
00:02:00	FIXED	NO	URI://cserver/ch01/ev03/03/button2.jpg

FIG. 15

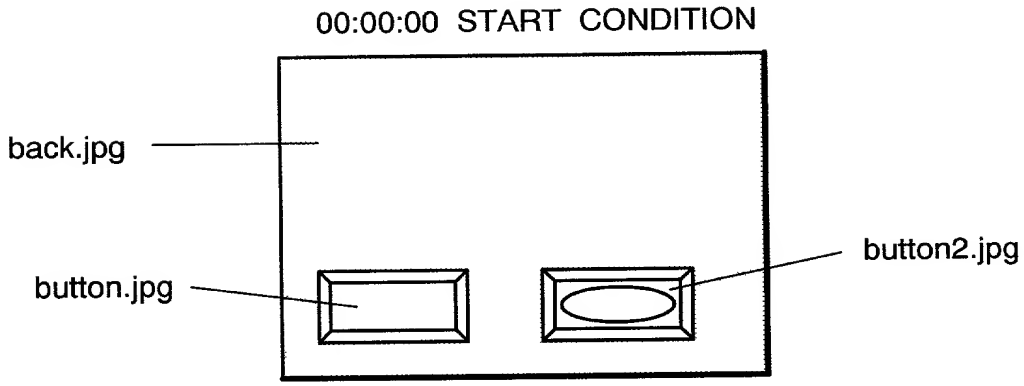

FIG. 16

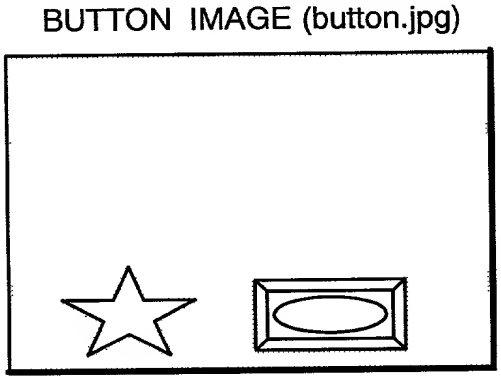

FIG. 17

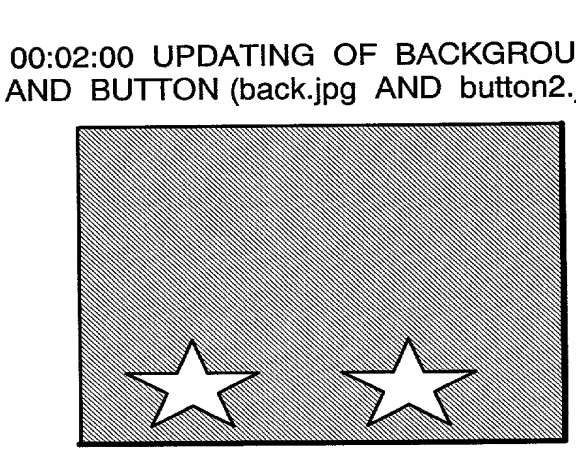

FIG. 18

DATA BROADCASTING SCHEDULE INFORMATION MAP (HIERARCHY 2)
REGISTERED CORRESPONDING TO Fig. 10

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	PRODUCTION IDENTIFICATION NUMBER	COMPOSITE FILE NAME	COMPONENT FILE NAME LIST	POINTER TO LOWER SCHEDULE INFORMATION MAP
33	Q-START	0300-0001	opening	startup.html	CORRESPONDING BROADCASTING SCHEDULE INFORMATION MAP OF HIERARCHY 3
				open.jpg	
				title.txt	
33	Q-INTRO	0300-0002	introduction	startup.html	....
				intro.wav	
				name.txt	
33	Q-Q1Q	0300-0003	Q1-question	startup.html	MAP OF Fig. 20
				back.jpg	MAP OF Fig. 20
				button.jpg	
				button2.jpg	
33	Q-Q1A	0300-0004	Q1-answer	startup.html	
				back2.jpg	
				answer.txt	
33	Q-Q2Q	0300-0005	Q2-question	startup.html	
				back2.jpg	
				button.jpg	
				button2.jpg	

Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
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FIG. 19

DATA BROADCASTING SCHEDULE INFORMATION MAP (HIERARCHY 1) STORED IN BROADCASTING SCHEDULE INFORMATION MAP STORAGE PORTION

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	CONTINUING TIME	IDENTIFICATION NUMBER	KIND	TITLE	POINTER TO LOWER SCHEDULE INFORMATION MAP
33	Q-START	00:15:00	0100-0001	PROGRAM	QUIZ ABC	→ SCHEDULE INFORMATION MAP OF Fig. 18
33	CM-IROHA	00:00:20	0200-0323	CM	IROHA COSMETICS	→ SCHEDULE INFORMATION MAP OF Fig. 18
33	CM-AIU	00:00:20	0200-0324	CM	AIU MOTORS	→
33	CM-XYZ	00:00:20	0200-0325	CM	XYZ FOODS	→
33	Q-Q2A	00:39:00	0100-0002	PROGRAM	QUIZ ABC-2	→
33	WEATHER	00:05:00	0100-0024	PROGRAM	WEATHER REPORT	→

Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
Inventor(s): Rina HAYASAKA, et al
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FIG.20

DATA BROADCASTING SCHEDULE INFORMATION MAP CORRESPONDING TO Fig. 11(HIERARCHY 3)

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	DATA POSITION IN PRODUCED CONTENTS SERVER
33	Q-Q1Q	URI://cserver/ch01/ev03/01/startup.html

FIG.21

DATA BROADCASTING SCHEDULE INFORMATION MAP CORRESPONDING TO Fig. 12(HIERARCHY 3)

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	DATA POSITION IN PRODUCED CONTENTS SERVER
33	Q-Q1Q	URI://cserver/ch01/ev03/01/back.jpg
33	Q-Q1Q-3	URI://cserver/ch01/ev03/03/back.jpg

FIG.22

DATA BROADCASTING SCHEDULE INFORMATION MAP CORRESPONDING TO Fig. 13 (HIERARCHY 3)

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	DATA POSITION IN PRODUCED CONTENTS SERVER
33	Q-Q1Q	URI://cserver/ch01/ev03/01/button.jpg
33	Q-Q1Q-2	URI://cserver/ch01/ev03/03/button.jpg

FIG.23

DATA BROADCASTING SCHEDULE INFORMATION MAP CORRESPONDING TO Fig. 14 (HIERARCHY 3)

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	DATA POSITION IN PRODUCED CONTENTS SERVER
33	Q-Q1Q	URI://cserver/ch01/ev03/01/button2.jpg
33	Q-Q1Q-3	URI://cserver/ch01/ev03/03/button2.jpg

BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
Inventor(s): Rina HAYASAKA, et al
DOCKET NO.: 040405/0336

FIG.24

PROGRAM IDENTIFIER	TIME IDENTIFIER	MANAGER	KIND	EXPLANATORY CHARACTER STRING	POINTER TO TIME OBJECT
33	Q-START	ORGANIZING	FIXED		
33	Q-INTRO	PRODUCING	FIXED		
33	Q-Q1Q	PRODUCING	INSERT(2)	Q1(QUESTION)	
33	Q-Q1Q-2	PRODUCING	INSERT(2)	BUTTON CHANGE	
33	Q-Q1Q-3	PRODUCING	OFFSET		
33	Q-Q1A	PRODUCING	INSERT(2)	Q1(ANSWER)	
33	Q-Q2Q	PRODUCING	INSERT(2)	Q1(QUESTION)	
33	CM-IROHA	ORGANIZING	INSERT(1)	CM (IROHA AND SO ON)	
33	CM-AIU	ORGANIZING	OFFSET		
33	CM-XYZ	ORGANIZING	OFFSET		
33	Q-Q2A	ORGANIZING	FIXED		
33	WEATHER	ORGANIZING	FIXED		

TIME FIXED TYPE TIME OBJECT

PROGRAM RELATIVE TIME
00:00:00

PROGRAM RELATIVE TIME
00:01:00

RANGE DESIGNATED TYPE TIME OBJECT

START-END TIME
00:04:50 - 00:05:10

START-END TIME
00:05:50 - 00:06:10

OFFSET DESIGNATION TYPE TIME OBJECT

OFFSET OBJECTIVE TIME IDENTIFIER	OFFSET TIME
Q-Q1Q	00:02:00

START-END TIME
00:09:50 - 00:10:10

START-END TIME
00:12:50 - 00:13:10

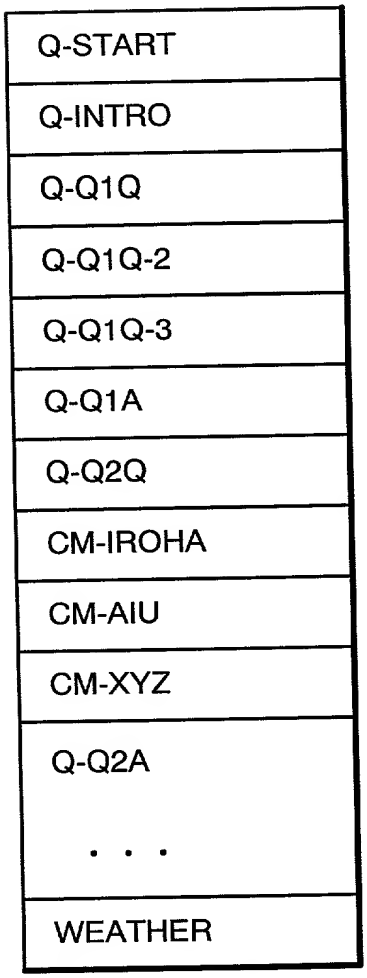
START-END TIME
00:14:50 - 00:15:10

OFFSET DESIGNATION TYPE TIME OBJECT

OFFSET OBJECTIVE TIME IDENTIFIER	OFFSET TIME
CM-IROHA	00:00:40

OFFSET OBJECTIVE TIME IDENTIFIER	OFFSET TIME
CM-IROHA	00:00:20

FIG.25


Q-START
Q-INTRO
Q-Q1Q
Q-Q1Q-2
Q-Q1Q-3
Q-Q1A
Q-Q2Q
CM-IROHA
CM-AIU
CM-XYZ
Q-Q2A
. . .
WEATHER

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UNITARY BROADCASTING SCHEDULE INFORMATION MAP GENERATED FOR BROADCASTING PREPARATORY PROCESS BY BROADCASTING UNIT IN FIRST EMBODIMENT OF THE PRESENT INVENTION

FIG.26

TIME IDENTIFIER	IDENTIFICATION NUMBER	KIND	TITLE	COMPOSITE FILE NAME	PRODUCING IDENTIFICATION NUMBER	CONSTITUENT FILE	FILE POSITION
Q-START	0100-0001	PROGRAM	QUIZ ABC	opening	0300-0001	startup.html open.jpg title.txt	. . .
Q-INTRO	0100-0001	PROGRAM	QUIZ ABC	introduction	0300-0002	startup.html intro.wav name.txt	. . .
Q-Q1Q	0100-0001	PROGRAM	QUIZ ABC	Q1-question	0300-0003	startup.html back.jpg button.jpg button2.jpg	URI://cserver/ch01/cv03/01/startup.html URI://cserver/ch01/ev03/01/back.jpg URI://cserver/ch01/ev03/01/button.jpg URI://cserver/ch01/ev03/01/button2.jpg
Q-Q1Q-2	0100-0001	PROGRAM	QUIZ ABC	Q1-question	0300-0003	startup.html back.jpg button.jpg button2.jpg	URI://cserver/ch01/cv03/01/startup.html URI://cserver/ch01/ev03/01/back.jpg URI://cserver/ch01/ev03/02/button.jpg URI://cserver/ch01/ev03/01/button2.jpg
Q-Q1Q-3	0100-0001	PROGRAM	QUIZ ABC	Q1-question	0300-0003	startup.html back.jpg button.jpg button2.jpg	URI://cserver/ch01/cv03/01/startup.html URI://cserver/ch01/ev03/02/back.jpg URI://cserver/ch01/ev03/02/button.jpg URI://cserver/ch01/ev03/03/button2.jpg
Q-Q1A	0100-0001	PROGRAM	QUIZ ABC	Q1-answer	0300-0004	....	....
Q-Q2Q	0100-0001	PROGRAM	QUIZ ABC	Q2-question	0300-0005	....	....
CM-IROHA	0200-0323	CM	IROHA COSMETICS	CM-iroha	0123-0001	....	....
CM-AIU	0200-0324	CM	AIU MOTORS	CM-aiu	0123-0002	....	....
CM-XYZ	0200-0325	CM	XYZ FOODS	CM-xyz	0123-0003	....	....
CM-Q2A	0100-0002	PROGRAM	QUIZ ABC-2	....	....	....	....
.... WEATHER	 0100-0024	.... PROGRAM	.... WEATHER REPORT	....	 0300-0200	....	....

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Inventor(s): Rina HAYASAKA, et al
DOCKET NO.: 040405/0336

FIG.27

TIME FIXED TYPE

TIME IDENTIFIER	MANAGER	KIND	EXPLANATORY CHARACTER STRING	RELATIVE TIME
Q-START	ORGANIZING	FIXED		00:00:00
Q-INTRO	PRODUCING	FIXED		00:01:00
Q-Q2A	ORGANIZING	FIXED		00:16:00
WEATHER	ORGANIZING	FIXED		00:55:00
⋮	⋮	⋮		⋮

FIG.28

OFFSET DESIGNATION TYPE

TIME IDENTIFIER	MANAGER	KIND	EXPLANATORY CHARACTER STRING	OBJECT	OFFSET VALUE
Q-Q1Q-3	PRODUCING	OFFSET		Q-Q1Q	00:02:00
CM-AIU	PRODUCING	OFFSET		CM-IROHA	00:00:20
CM-XYZ	PRODUCING	OFFSET		CM-IROHA	00:00:40

FIG.29

RANGE DESIGNATION TYPE (TRIGGER INPUT DEVICE 151)

TIME IDENTIFIER	MANAGER	KIND	EXPLANATORY CHARACTER STRING	INSERT TIME RANGE
CM-IROHA	ORGANIZING	INSERT(1)	CM (IROHA AND SO ON)	00:14:50 - 00:15:10

FIG.30

RANGE DESIGNATION TYPE (TRIGGER INPUT DEVICE 152)

TIME IDENTIFIER	MANAGER	KIND	EXPLANATORY CHARACTER STRING	INSERT TIME RANGE
Q-Q1Q	PRODUCING	INSERT(2)	Q1(QUESTION)	00:04:50 - 00:05:10
Q-Q1Q-2	PRODUCING	INSERT(2)	BUTTON CHANGE	00:05:50 - 00:06:10
Q-Q1A	PRODUCING	INSERT(2)	Q1(ANSWER)	00:09:50 - 00:10:10
Q-Q2Q	PRODUCING	INSERT(2)	Q2(QUESTION)	00:12:50 - 00:13:10

FIG.31

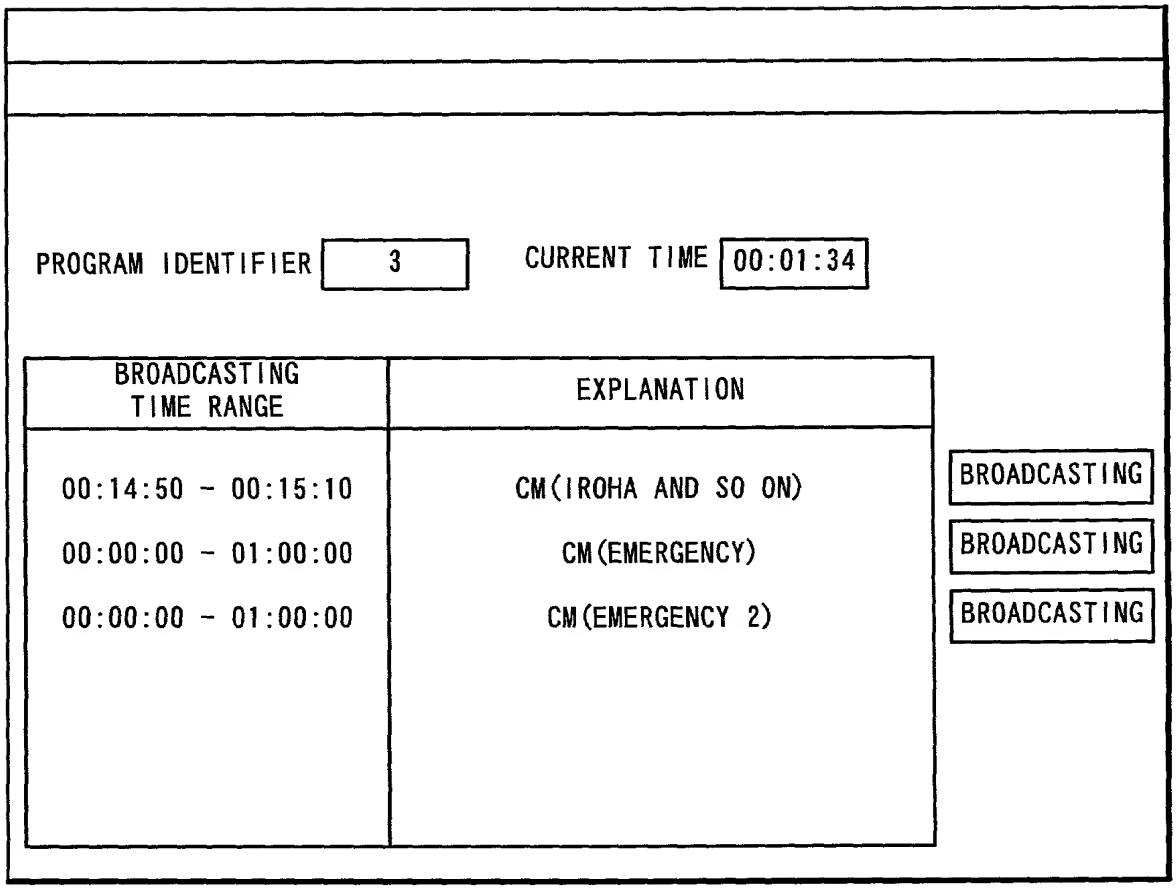
PROGRAM IDENTIFIER
3
CURRENT TIME
00:01:34
BROADCASTING TIME RANGE
EXPLANATION
00:14:50 - 00:15:10
CM(IROHA AND SO ON)
BROADCASTING
00:00:00 - 01:00:00
CM(EMERGENCY)
BROADCASTING
00:00:00 - 01:00:00
CM(EMERGENCY 2)
BROADCASTING

FIG.32

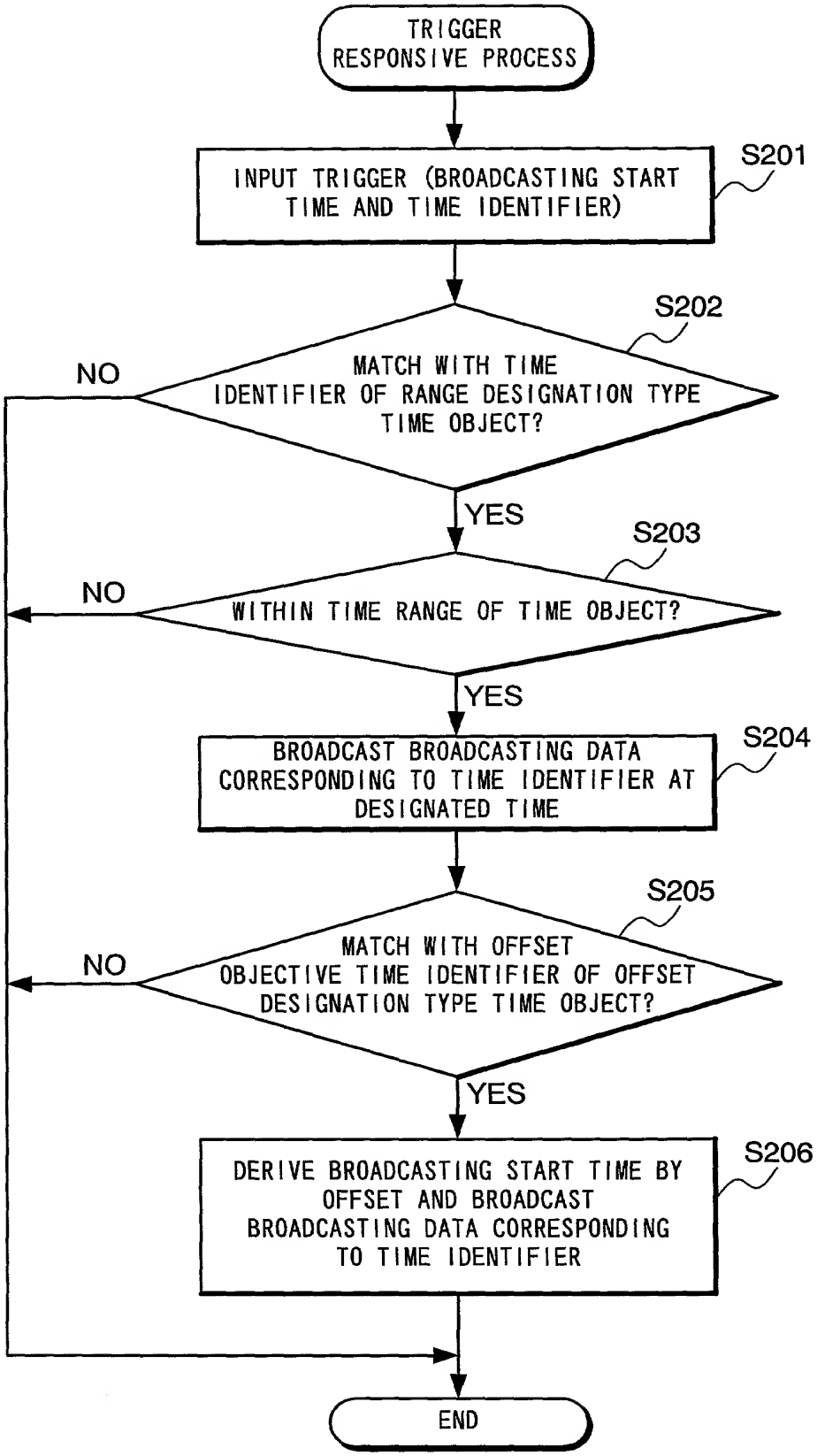
TRIGGER RESPONSIVE PROCESS
INPUT TRIGGER (BROADCASTING START TIME AND TIME IDENTIFIER)
S201
S202
MATCH WITH TIME IDENTIFIER OF RANGE DESIGNATION TYPE TIME OBJECT?
NO
YES
S203
WITHIN TIME RANGE OF TIME OBJECT?
NO
YES
BROADCAST BROADCASTING DATA CORRESPONDING TO TIME IDENTIFIER AT DESIGNATED TIME
S204
S205
MATCH WITH OFFSET OBJECTIVE TIME IDENTIFIER OF OFFSET DESIGNATION TYPE TIME OBJECT?
NO
YES
DERIVE BROADCASTING START TIME BY OFFSET AND BROADCAST BROADCASTING DATA CORRESPONDING TO TIME IDENTIFIER
S206
END

FIG.33

BROADCASTING START TIMING	CONTINUING TIME	IDENTIFICATION NUMBER	KIND	UNTIME	TITLE	EXPLANATORY CHARACTER STRING
00/01/22 07:00:00	00:15:00	0100-0001	PROGRAM	FIXED	QUIZ ABC	NO
00/01/22 07:15:00	00:00:20	0200-0323	CM	INSERT(1)	IROHA COSMETICS	CM (IROHA AND SO ON)
00/01/22 07:15:20	00:00:20	0200-0324	CM	OFFSET	AIU MOTORS	NO
00/01/22 07:15:40	00:00:20	0200-0325	CM	OFFSET	XYZ FOODS	NO
00/01/22 07:16:00	00:39:00	0100-0002	PROGRAM	FIXED	QUIZ ABC-2	NO
00/01/22 07:55:00	00:05:00	0100-0024	PROGRAM	FIXED	WEATHER REPORT	NO
NOT DETERMINED	00:00:30	0200-0400	CM	INSERT(1)	BB BROADCASTING STATION	CM(EMERGENCY)
NOT DETERMINED	00:00:30	0200-0500	CM	INSERT(1)	EMERGENCY CM	CM(EMERGENCY 2)

Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
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Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
Inventor(s): Rina HAYASAKA, et al
DOCKET NO.: 040405/0336

FIG.34

COMPOSITE MEDIA FILE MODIFICATION SCHEDULE INFORMATION MAP CORRESPONDING TO FRAME OF "BB BROADCASTING STATION"

BROADCASTING START TIMING	CONTINUING TIME	PRODUCING IDENTIFICATION NUMBER	UNTIME	COMPOSITE FILE NAME	EXPLANATORY CHARACTER STRING	CONSTITUENT FILE LIST
00:00:00	00:00:30	0300-1000	FIXED	bb-cm		startup.html , back.jpg , intro.wav

FIG.35

FILE UPDATING SCHEDULE INFORMATION MAP
OF startup.html OF bb-cm

BROADCASTING START TIME	UNTIME	DATA POSITION IN PRODUCED CONTENTS SERVER
00:00:00	FIXED	URI://cserver/ch01/ev03/10/startup.html

FIG.36

FILE UPDATING SCHEDULE INFORMATION MAP
OF back.jpg OF bbb-cm

BROADCASTING START TIME	UNTIME	DATA POSITION IN PRODUCED CONTENTS SERVER
00:00:00	FIXED	URI://cserver/ch01/ev02/10/back.jpg

FIG.37

FILE UPDATING SCHEDULE INFORMATION MAP
OF intro.wav OF bbb-cm

BROADCASTING START TIME	UNTIME	DATA POSITION IN PRODUCED CONTENTS SERVER
00:00:00	FIXED	URI://cserver/ch01/ev02/10/intro.wav
00:00:05	FIXED	URI://cserver/ch01/ev02/11/intro.wav

Tokano T2Ohaad

FIG.38

DATA BROADCASTING SCHEDULE INFORMATION MAP (HIERARCHY 1) CORRESPONDING TO Fig. 33

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	CONTINUING TIME	IDENTIFICATION NUMBER	KIND	TITLE	POINTER TO LOWER SCHEDULE INFORMATION MAP
33	Q-START	00:15:00	0100-0001	PROGRAM	QUIZ ABC	
33	CM-IROHA	00:00:20	0200-0323	CM	IROHA COSMETICS	
33	CM-AIU	00:00:20	0200-0324	CM	AIU MOTORS	
33	CM-XYZ	00:00:20	0200-0325	CM	XYZ FOODS	
33	Q-Q2A	00:39:00	0100-0002	PROGRAM	QUIZ ABC-2	
33	WEATHER	00:55:00	0100-0024	PROGRAM	WEATHER REPORT	
33	CM-BB	00:00:30	0200-0400	CM	BB BROADCASTING STATION	
33	CM-GOV	00:00:30	0200-0500	CM	CC BROADCASTING STATION CM	

MAP OF FIG. 39

Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
Inventor(s): Rina HAYASAKA, et al
DOCKET NO.: 040405/0336

Tokeno: 1270360

FIG.39

DATA BROADCASTING SCHEDULE INFORMATION MAP (HIERARCHY 2)
CORRESPONDING TO Fig. 34

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	PRODUCING IDENTIFICATION NUMBER	COMPOSITE FILE NAME	CONSTITUENT FILE NAME LIST	POINT TO LOWER SCHEDULE INFORMATION MAP
33	CM-BB	0300-1000	bb-cm	startup.html	→ MAP OF FIG.40
				back.jpg	→ MAP OF FIG.41
				intro.wav	→ MAP OF FIG.42

Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
Inventor(s): Rina HAYASAKA, et al
DOCKET NO.: 040405/0336

FIG. 40

DATA BROADCASTING SCHEDULE INFORMATION MAP (HIERARCHY 3) CORRESPONDING TO Fig. 35

PROGRAM IDENTIFIER	RELATIVE TIME	DATA POSITION IN PRODUCED CONTENTS SERVER
33	CM-BB	URI://cserver/ch01/ev02/10/startup.html

FIG. 41

DATA BROADCASTING SCHEDULE INFORMATION MAP (HIERARCHY 3) CORRESPONDING TO Fig. 36

PROGRAM IDENTIFIER	BROADCASTING START TIME	DATA POSITION IN PRODUCED CONTENTS SERVER
33	CM-BB	URI://cserver/ch01/ev02/10/back.jpg

FIG. 42

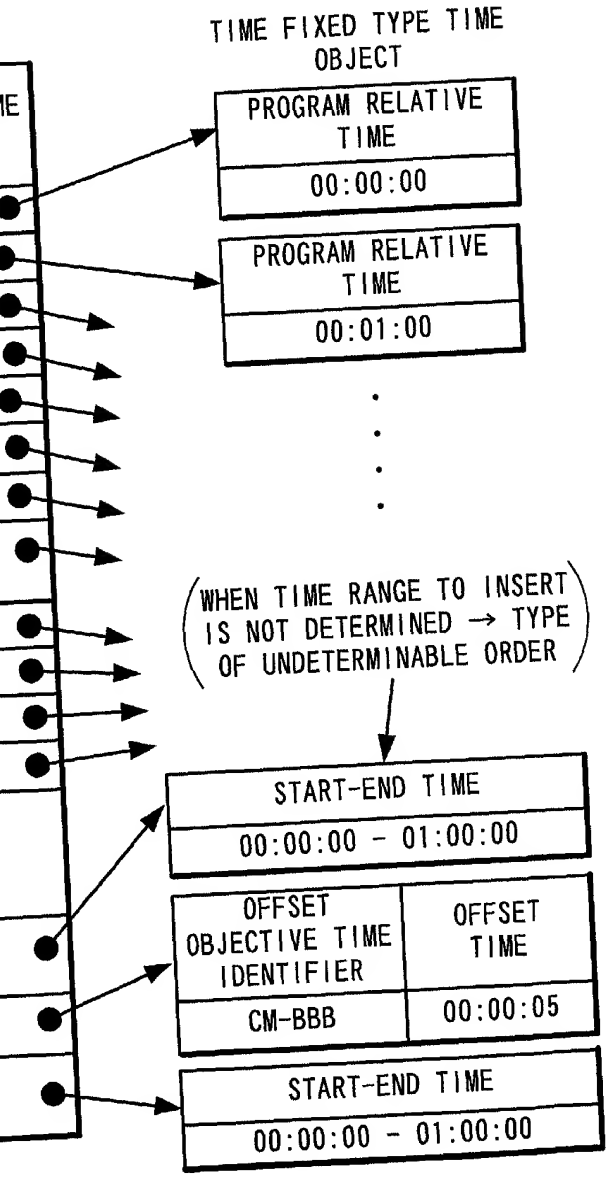
DATA BROADCASTING SCHEDULE INFORMATION MAP (HIERARCHY 3) CORRESPONDING TO Fig. 37

PROGRAM IDENTIFIER	BROADCASTING START TIME	DATA POSITION IN PRODUCED CONTENTS SERVER
33	CM-BB	URI://cserver/ch01/ev02/10/intro.wav
33	CM-BB2	URI://cserver/ch01/ev02/11/intro.wav

Tohzho Tetom860

FIG.43

PROGRAM IDENTIFIER	TIME IDENTIFIER	MANAGER	KIND	EXPLANATORY CHARACTER STRING	POINTER TO TIME OBJECT
33	Q-START	ORGANIZING	FIXED		
33	Q-INTRO	PRODUCING	FIXED		
33	Q-Q1Q	PRODUCING	INSERT(2)	Q1(QUESTION)	
33	Q-Q1Q-2	PRODUCING	INSERT(2)	BUTTON CHANGE	
33	Q-Q1Q-3	PRODUCING	OFFSET		
33	Q-Q1A	PRODUCING	INSERT(2)	Q1(ANSWER)	
33	Q-Q2Q	PRODUCING	INSERT(2)	Q2(QUESTION)	
33	CM-IROHA	ORGANIZING	INSERT(1)	CM (IROHA AND SO ON)	
33	CM-AIU	ORGANIZING	OFFSET		
33	CM-XYZ	ORGANIZING	OFFSET		
33	Q-Q2A	ORGANIZING	FIXED		
33	WEATHER	ORGANIZING	FIXED		
	.....	.....	.....	.....	.....
33	CM-BB	ORGANIZING	INSERT(1)	CM(EMERGENCY)	
33	CM-BB2	ORGANIZING	OFFSET	NO	
33	CM-GOV	ORGANIZING	INSERT(1)	CM(EMERGENCY 2)	



Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
Inventor(s): Rina HAYASAKA, et al
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Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
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DOCKET NO.: 040405/0336

FIG. 44

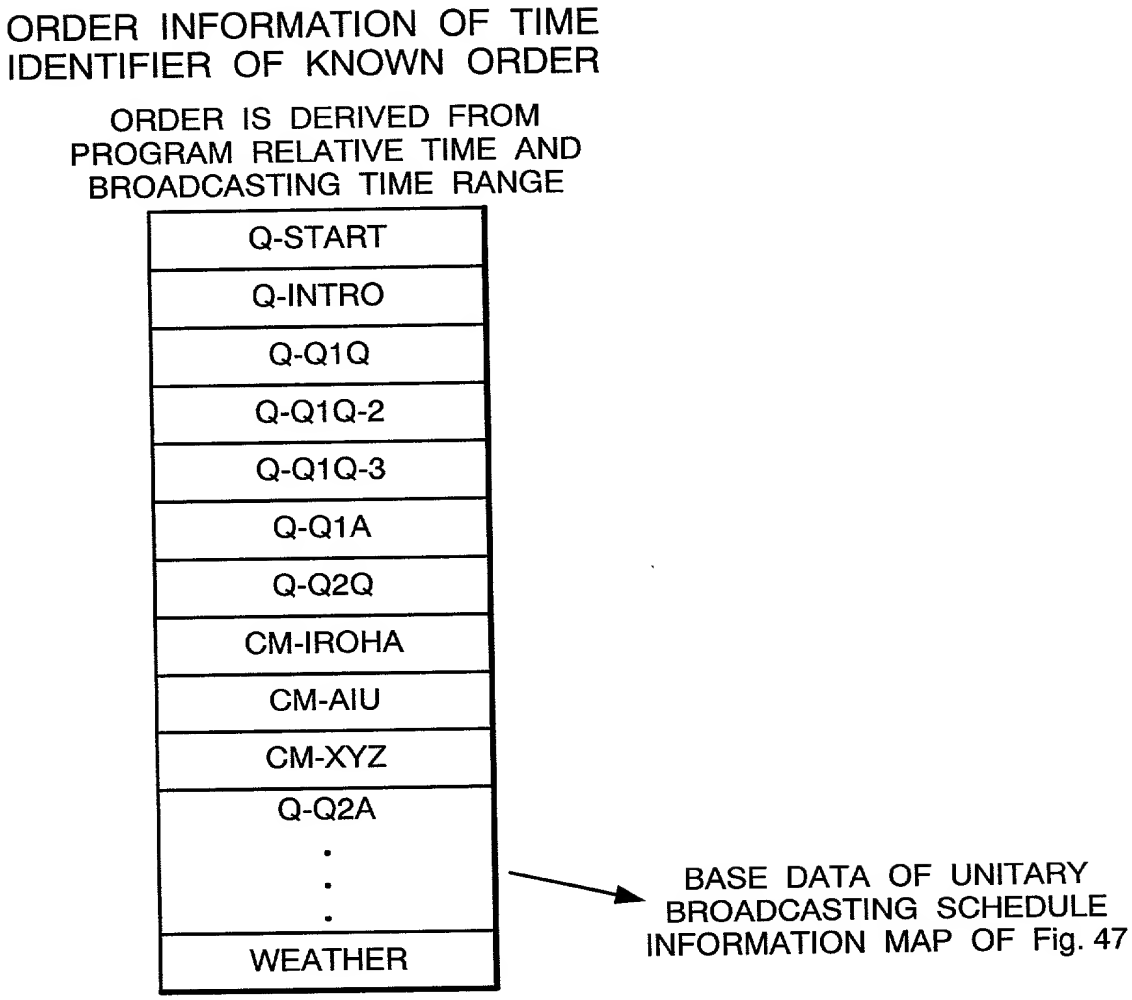


FIG.45

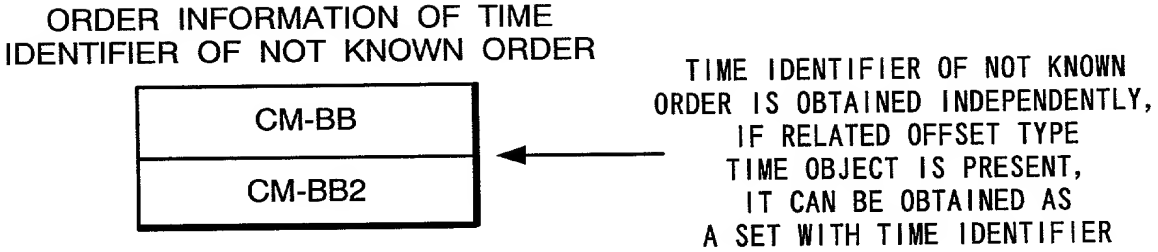
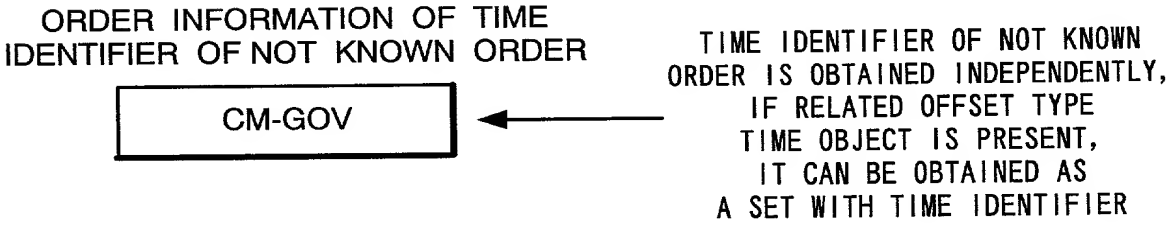

ORDER INFORMATION OF TIME IDENTIFIER OF NOT KNOWN ORDER
CM-BB
CM-BB2
TIME IDENTIFIER OF NOT KNOWN ORDER IS OBTAINED INDEPENDENTLY, IF RELATED OFFSET TYPE TIME OBJECT IS PRESENT, IT CAN BE OBTAINED AS A SET WITH TIME IDENTIFIER

FIG.46


ORDER INFORMATION OF TIME IDENTIFIER OF NOT KNOWN ORDER
CM-GOV
TIME IDENTIFIER OF NOT KNOWN ORDER IS OBTAINED INDEPENDENTLY, IF RELATED OFFSET TYPE TIME OBJECT IS PRESENT, IT CAN BE OBTAINED AS A SET WITH TIME IDENTIFIER

Tokyo Tokyo

FIG. 47

TIME IDENTIFIER	IDENTIFICATION NUMBER	KIND	TITLE	COMPOSITE FILE NAME	PRODUCING IDENTIFICATION NUMBER	CONSTITUENT FILE	FILE POSITION
Q-START	0100-0001	PROGRAM	QUIZ ABC	opening	0300-0001	• • •	• • •
Q-INTRO	0100-0001	PROGRAM	QUIZ ABC	introduction	0300-0002	• • •	• • •
Q-Q1Q	0100-0001	PROGRAM	QUIZ ABC	Q1-question	0300-0003	startup.html back.jpg button.jpg button2.jpg	URI://cserver/ch01/cv03/01/startup.html URI://cserver/ch01/ev03/01/back.jpg URI://cserver/ch01/ev03/01/button.jpg URI://cserver/ch01/ev03/01/button2.jpg
Q-Q1Q-2	0100-0001	PROGRAM	QUIZ ABC	Q1-question	0300-0003	startup.html back.jpg button.jpg button2.jpg	URI://cserver/ch01/cv03/01/startup.html URI://cserver/ch01/ev03/01/back.jpg URI://cserver/ch01/ev03/02/button.jpg URI://cserver/ch01/ev03/01/button2.jpg
Q-Q1Q-3	0100-0001	PROGRAM	QUIZ ABC	Q1-answer	0300-0003	startup.html back.jpg button.jpg button2.jpg	URI://cserver/ch01/cv03/01/startup.html URI://cserver/ch01/ev03/02/back.jpg URI://cserver/ch01/ev03/02/button.jpg URI://cserver/ch01/ev03/03/button2.jpg
Q-Q1A	0100-0001	PROGRAM	QUIZ ABC	Q1-answer	0300-0004	• • •	• • •
Q-Q2Q	0100-0001	PROGRAM	QUIZ ABC	Q2-question	0300-0005	• • •	• • •
• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •
CM-BB	0200-0400	CM	BB BROADCASTING STATION	bbb-cm	0300-1000	startup.html back.jpg intro.wav	URI://cserver/ch01/cv03/10/startup.html URI://cserver/ch01/ev03/10/back.jpg URI://cserver/ch01/ev03/10/intro.wav
CM-BB2	0200-0400	CM	BB BROADCASTING STATION	bbb-cm	0300-1000	startup.html back.jpg intro.wav	URI://cserver/ch01/cv03/10/startup.html URI://cserver/ch01/ev03/10/back.jpg URI://cserver/ch01/ev03/11/intro.wav
CM-GOV	0200-0500	CM	EMERGENCY CM	gov-cm	0300-1100	• • •	• • •

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Inventor(s): Rina HAYASAKA, et al
DOCKET NO.: 040405/0336

FIG.48

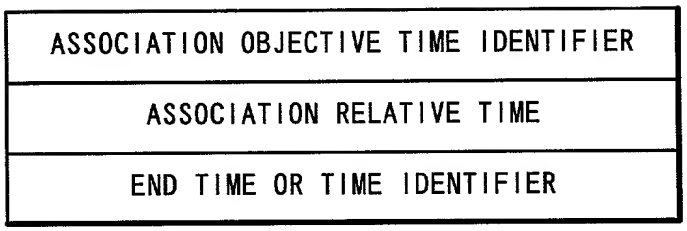

ASSOCIATION TYPE TIME OBJECT
ASSOCIATION OBJECTIVE TIME IDENTIFIER
ASSOCIATION RELATIVE TIME
END TIME OR TIME IDENTIFIER

FIG.49

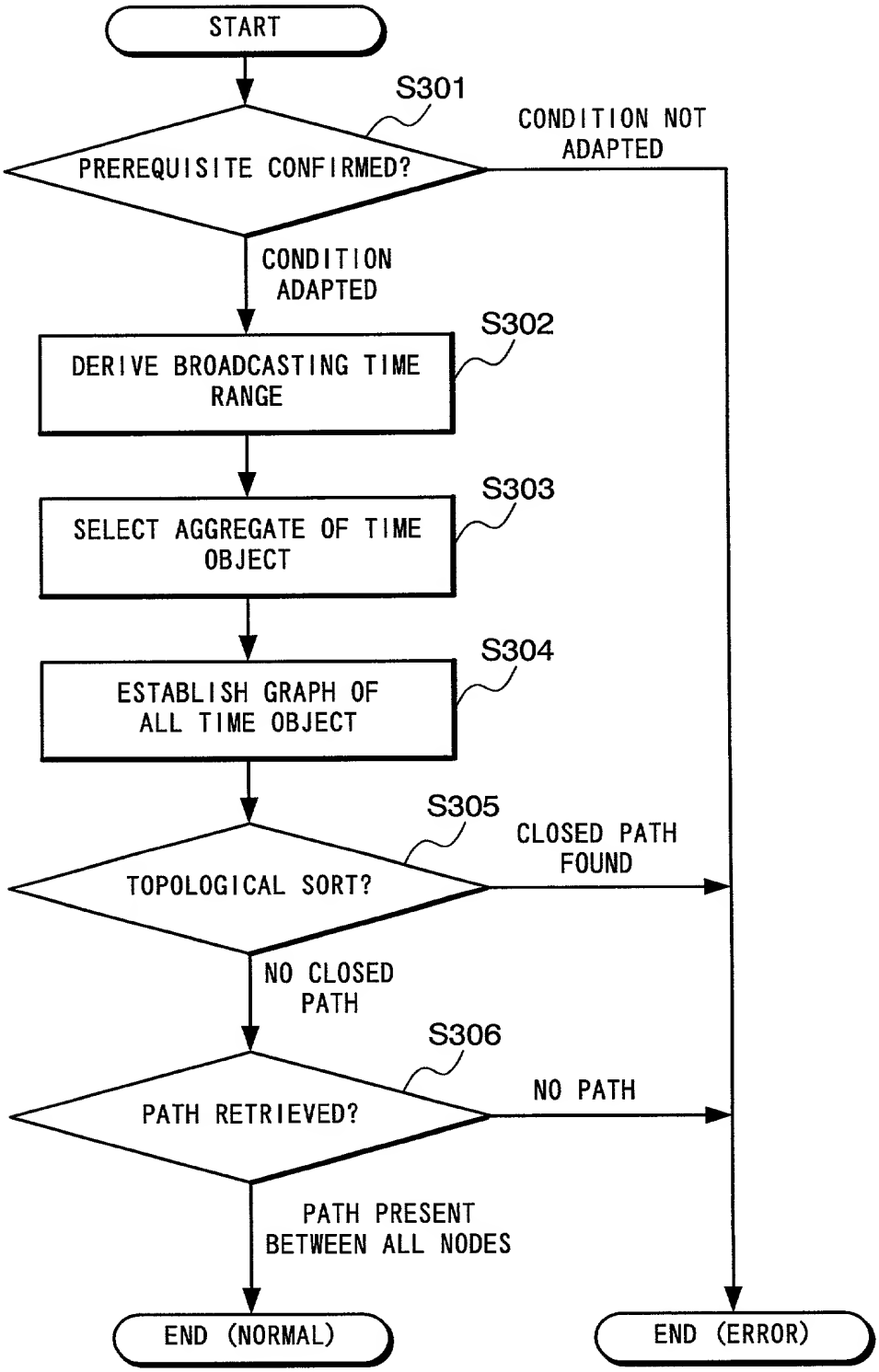

START
S301
PREREQUISITE CONFIRMED?
CONDITION NOT ADAPTED
CONDITION ADAPTED
S302
DERIVE BROADCASTING TIME RANGE
S303
SELECT AGGREGATE OF TIME OBJECT
S304
ESTABLISH GRAPH OF ALL TIME OBJECT
S305
TOPOLOGICAL SORT?
CLOSED PATH FOUND
NO CLOSED PATH
S306
PATH RETRIEVED?
NO PATH
PATH PRESENT BETWEEN ALL NODES
END (NORMAL)
END (ERROR)

FIG.50

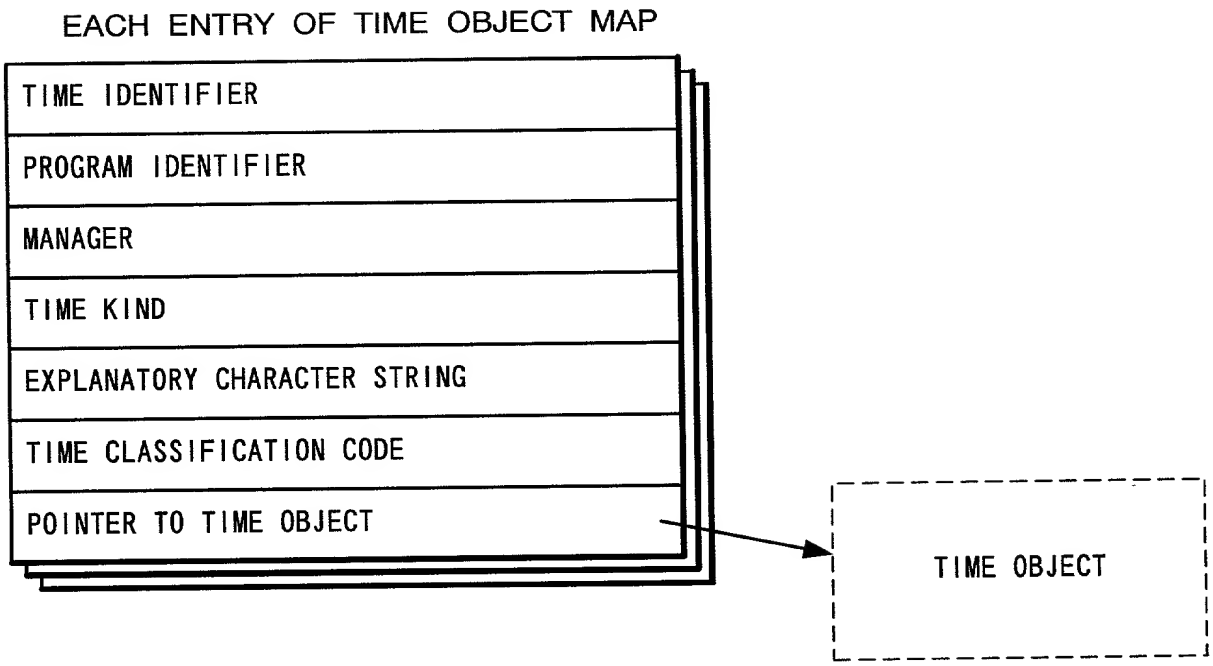

EACH ENTRY OF TIME OBJECT MAP
TIME IDENTIFIER
PROGRAM IDENTIFIER
MANAGER
TIME KIND
EXPLANATORY CHARACTER STRING
TIME CLASSIFICATION CODE
POINTER TO TIME OBJECT
TIME OBJECT

FIG.51

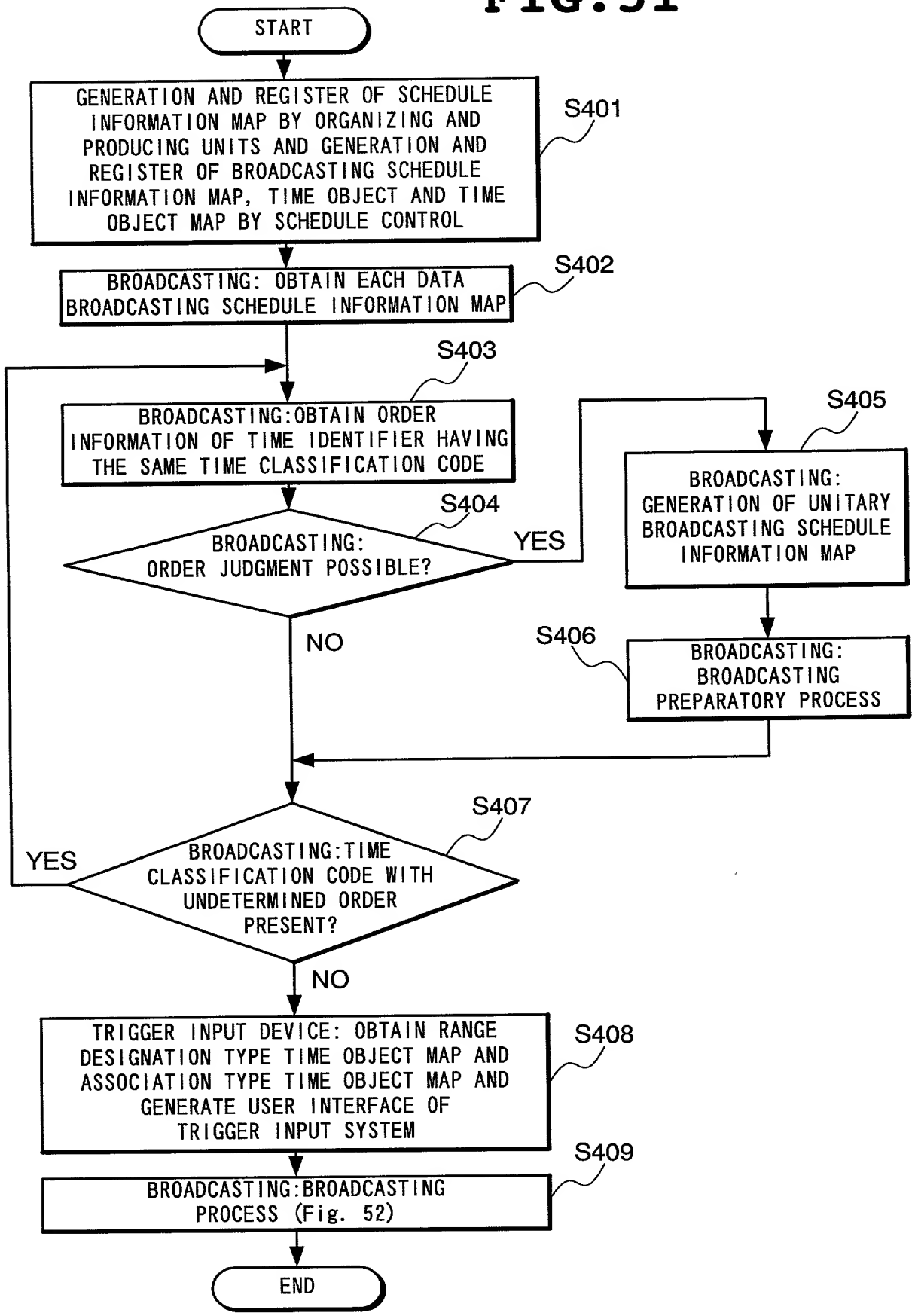

START
GENERATION AND REGISTER OF SCHEDULE INFORMATION MAP BY ORGANIZING AND PRODUCING UNITS AND GENERATION AND REGISTER OF BROADCASTING SCHEDULE INFORMATION MAP, TIME OBJECT AND TIME OBJECT MAP BY SCHEDULE CONTROL
S401
BROADCASTING: OBTAIN EACH DATA BROADCASTING SCHEDULE INFORMATION MAP
S402
S403
BROADCASTING:OBTAIN ORDER INFORMATION OF TIME IDENTIFIER HAVING THE SAME TIME CLASSIFICATION CODE
S404
BROADCASTING: ORDER JUDGMENT POSSIBLE?
YES
NO
S405
BROADCASTING: GENERATION OF UNITARY BROADCASTING SCHEDULE INFORMATION MAP
S406
BROADCASTING: BROADCASTING PREPARATORY PROCESS
S407
BROADCASTING:TIME CLASSIFICATION CODE WITH UNDETERMINED ORDER PRESENT?
YES
NO
TRIGGER INPUT DEVICE: OBTAIN RANGE DESIGNATION TYPE TIME OBJECT MAP AND ASSOCIATION TYPE TIME OBJECT MAP AND GENERATE USER INTERFACE OF TRIGGER INPUT SYSTEM
S408
BROADCASTING:BROADCASTING PROCESS (Fig. 52)
S409
END

FIG.52

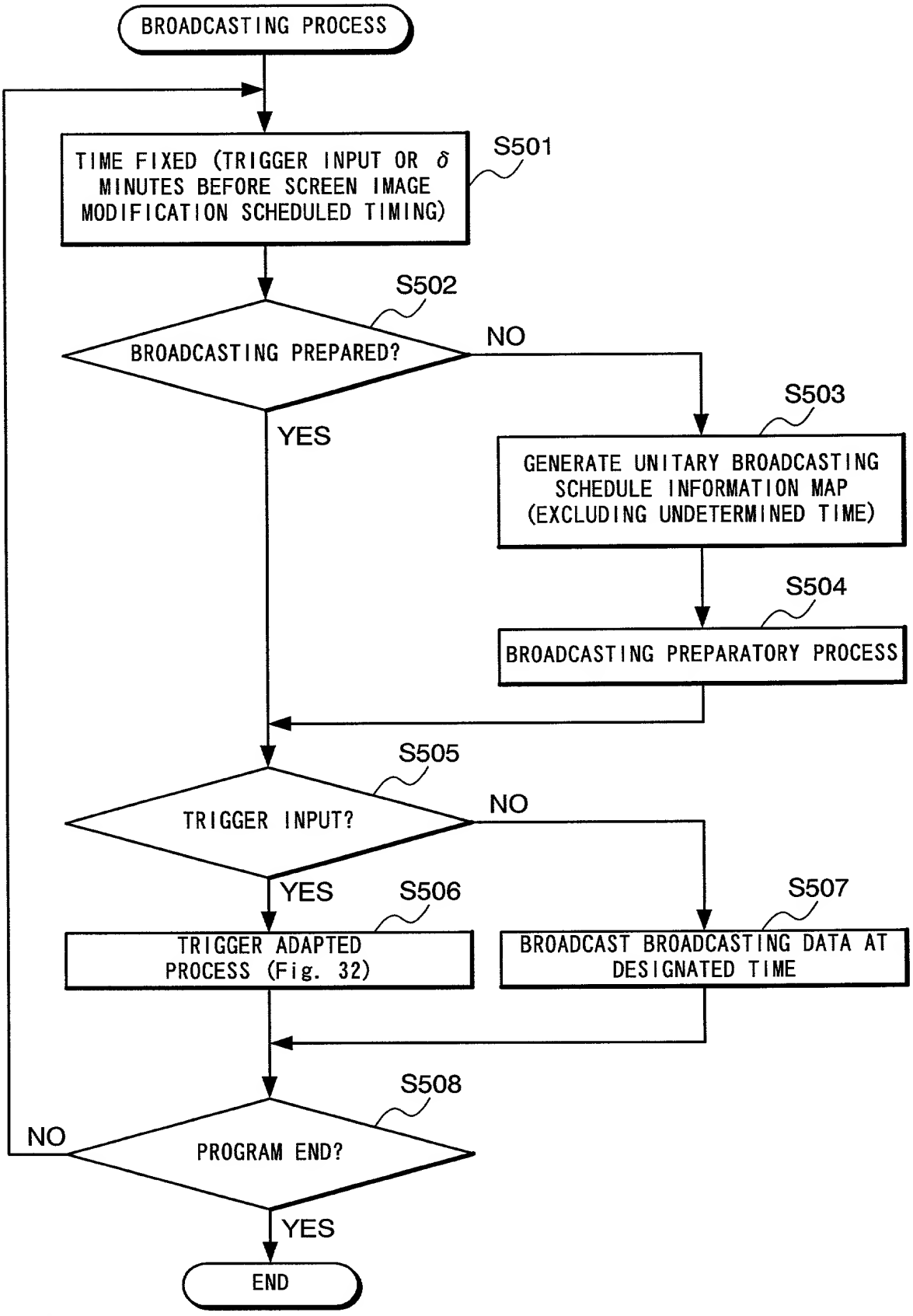
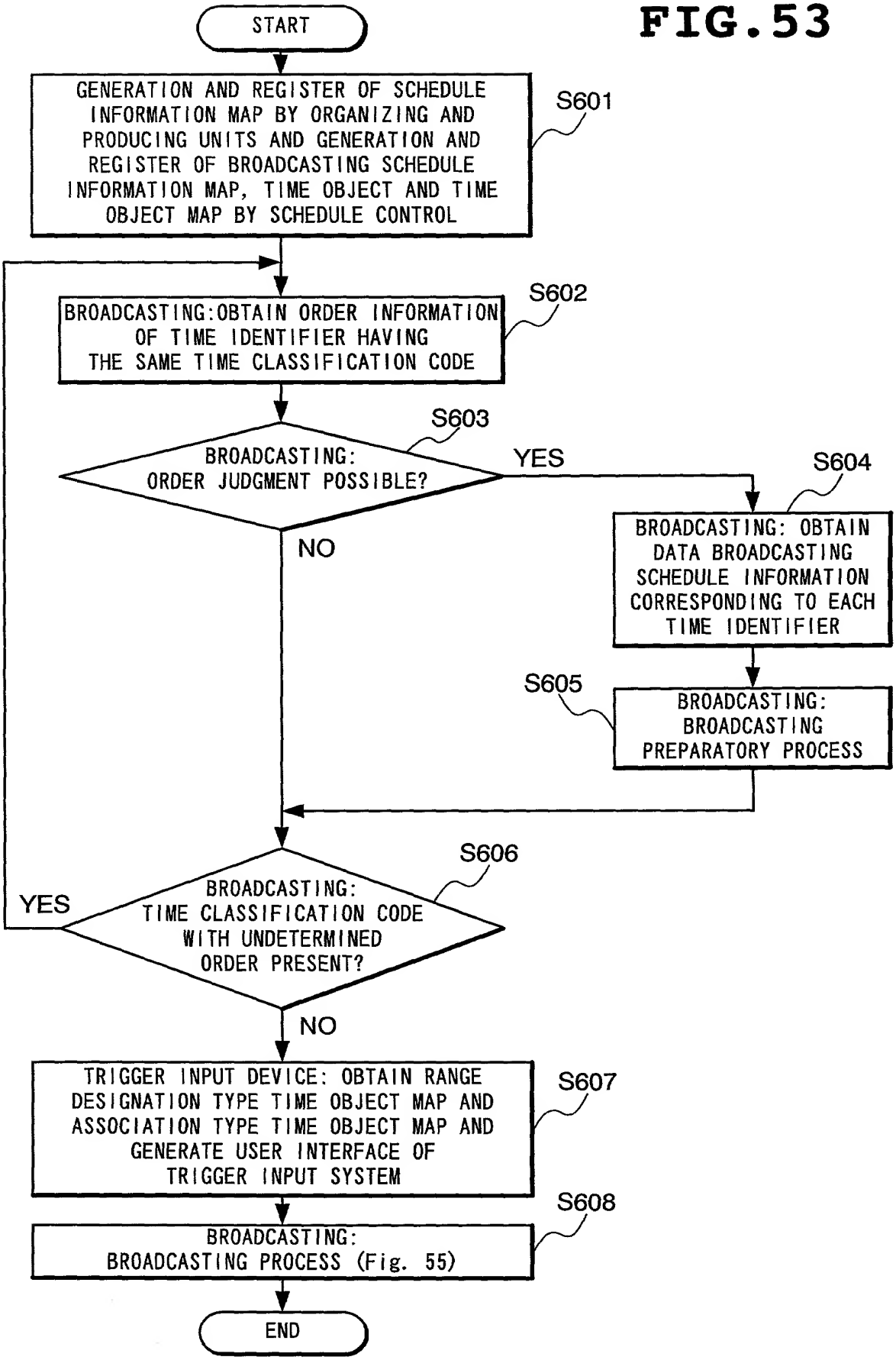

BROADCASTING PROCESS
TIME FIXED (TRIGGER INPUT OR δ MINUTES BEFORE SCREEN IMAGE MODIFICATION SCHEDULED TIMING)
S501
S502
BROADCASTING PREPARED?
NO
YES
S503
GENERATE UNITARY BROADCASTING SCHEDULE INFORMATION MAP (EXCLUDING UNDETERMINED TIME)
S504
BROADCASTING PREPARATORY PROCESS
S505
TRIGGER INPUT?
NO
YES
S506
TRIGGER ADAPTED PROCESS (Fig. 32)
S507
BROADCAST BROADCASTING DATA AT DESIGNATED TIME
S508
NO
PROGRAM END?
YES
END

FIG.53


START
GENERATION AND REGISTER OF SCHEDULE INFORMATION MAP BY ORGANIZING AND PRODUCING UNITS AND GENERATION AND REGISTER OF BROADCASTING SCHEDULE INFORMATION MAP, TIME OBJECT AND TIME OBJECT MAP BY SCHEDULE CONTROL
S601
BROADCASTING:OBTAIN ORDER INFORMATION OF TIME IDENTIFIER HAVING THE SAME TIME CLASSIFICATION CODE
S602
BROADCASTING: ORDER JUDGMENT POSSIBLE?
S603
YES
NO
BROADCASTING: OBTAIN DATA BROADCASTING SCHEDULE INFORMATION CORRESPONDING TO EACH TIME IDENTIFIER
S604
BROADCASTING: BROADCASTING PREPARATORY PROCESS
S605
BROADCASTING: TIME CLASSIFICATION CODE WITH UNDETERMINED ORDER PRESENT?
S606
YES
NO
TRIGGER INPUT DEVICE: OBTAIN RANGE DESIGNATION TYPE TIME OBJECT MAP AND ASSOCIATION TYPE TIME OBJECT MAP AND GENERATE USER INTERFACE OF TRIGGER INPUT SYSTEM
S607
BROADCASTING: BROADCASTING PROCESS (Fig. 55)
S608
END

Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
Inventor(s): Rina HAYASAKA, et al
DOCKET NO.: 040405/0336

FIG.54

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	CONTINUING TIME	IDENTIFICATION NUMBER	KIND	TITLE
33	Q-START	00:15:00	0100-0001	PROGRAM	QUIZ ABC

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	PRODUCING IDENTIFICATION NUMBER	COMPOSITE FILE NAME	CONSTITUENT FILE NAME LIST
33	Q-Q1Q	0300-0003	Q1-question	startup.html
				back.jpg
				button.jpg
				button2.jpg

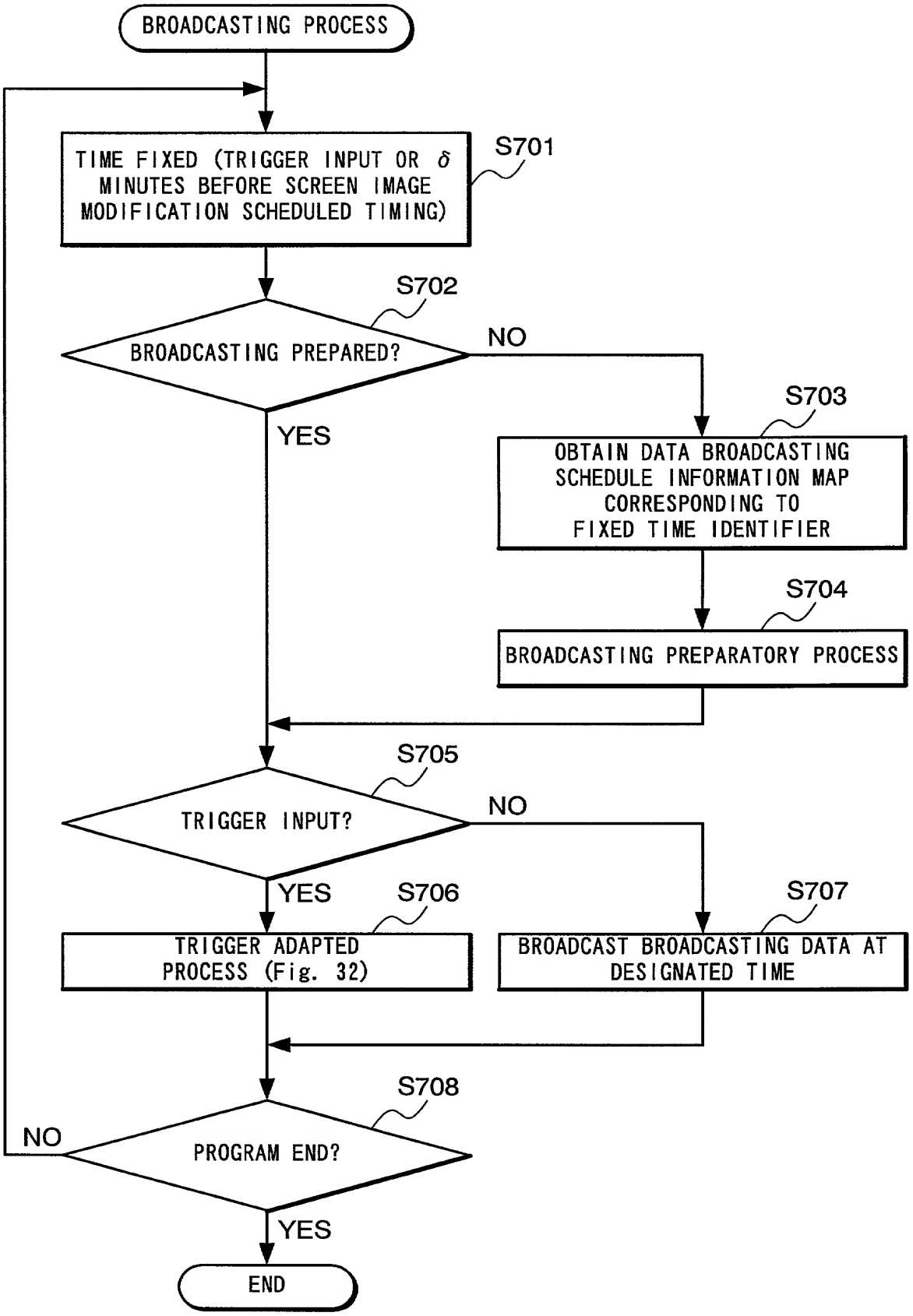
PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	DATA POSITION IN PRODUCED CONTENTS SERVER
33	Q-Q1Q	URI://cserver/ch01/ev03/01/startup.html

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	DATA POSITION IN PRODUCED CONTENTS SERVER
33	Q-Q1Q	URI://cserver/ch01/ev03/01/back.jpg

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	DATA POSITION IN PRODUCED CONTENTS SERVER
33	Q-Q1Q-2	URI://cserver/ch01/ev03/03/button.jpg

PROGRAM IDENTIFIER	BROADCASTING START TIMING (TIME IDENTIFIER)	DATA POSITION IN PRODUCED CONTENTS SERVER
33	Q-Q1Q	URI://cserver/ch01/ev03/01/button2.jpg

FIG.55


BROADCASTING PROCESS
TIME FIXED (TRIGGER INPUT OR δ MINUTES BEFORE SCREEN IMAGE MODIFICATION SCHEDULED TIMING)
S701
S702
BROADCASTING PREPARED?
NO
YES
S703
OBTAIN DATA BROADCASTING SCHEDULE INFORMATION MAP CORRESPONDING TO FIXED TIME IDENTIFIER
S704
BROADCASTING PREPARATORY PROCESS
S705
TRIGGER INPUT?
NO
YES
S706
TRIGGER ADAPTED PROCESS (Fig. 32)
S707
BROADCAST BROADCASTING DATA AT DESIGNATED TIME
S708
NO
PROGRAM END?
YES
END

Title: COMPOSITE MEDIA FILE BROADCASTING PROGRAM BROADCASTING CONTROL SYSTEM
Inventor(s): Rina HAYASAKA, et al
DOCKET NO.: 040405/0336

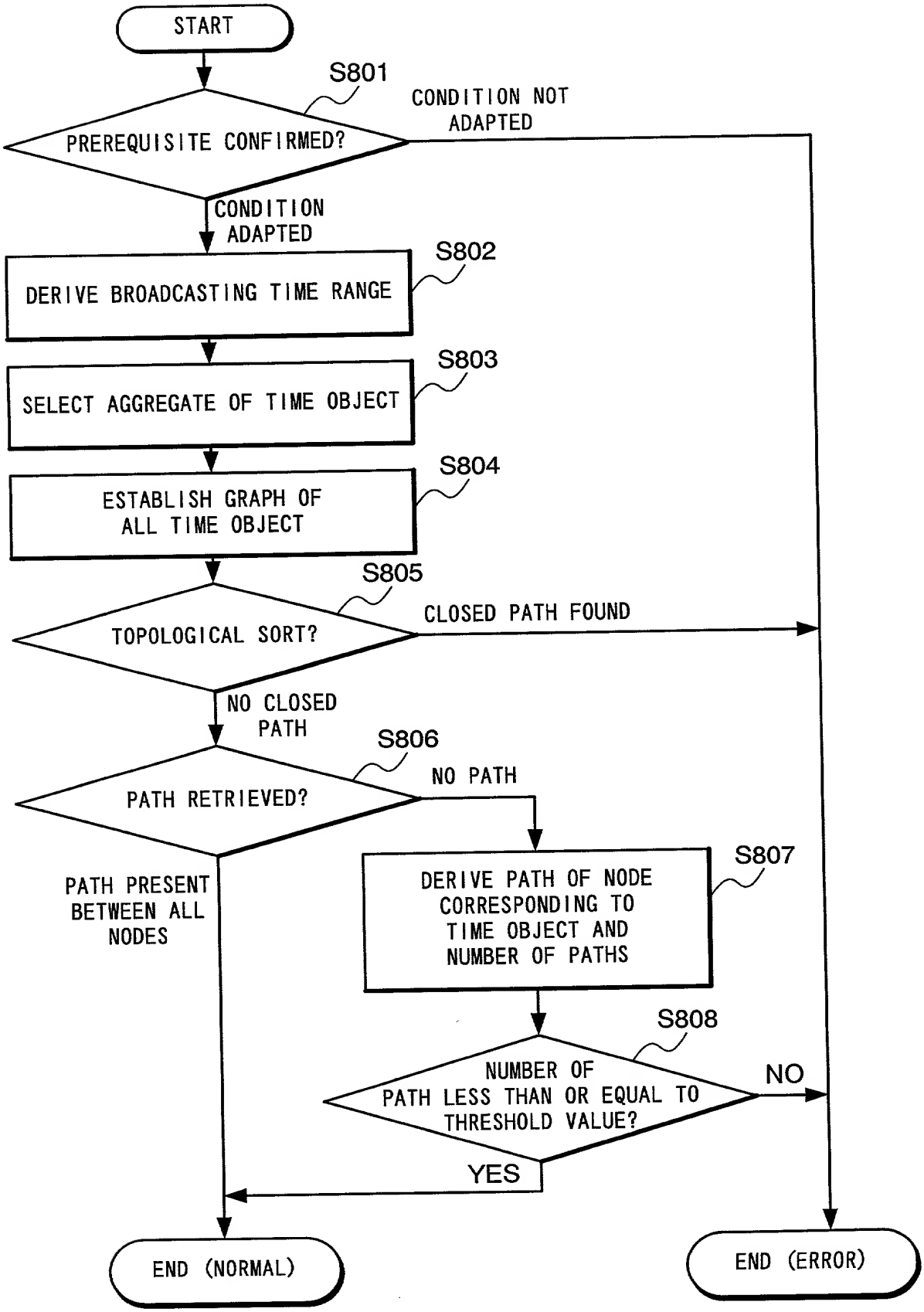



FIG.56